

YouTube Physics

► Outta This World

Some physics misconceptions arise due to the fact that in our everyday world, air resistance and friction are always present. By taking an experiment into a “zero gravity” or “micro gravity” situation, we can often greatly reduce the effect of these undesired forces and dispel misconceptions.

I offer up these links from various space missions because they are “outta this world.”

1. An astronaut demonstrates conservation of angular momentum using CD players in a “micro gravity” environment. One neat side benefit of this video is it really shows that the astronauts were playful in their discovery of this demo!

<http://www.youtube.com/watch?v=gdAmEEAiJWo>

2. How many of us have told our students about the guinea and the feather? This is the classic clip of the hammer and the feather drop on the moon. Astronaut Dave Scott is seen dropping the objects and gives Galileo some credit for the results.

http://www.youtube.com/watch?v=5C5_dOEyAfk

3. So often, students don't see action-reaction pairs at work. This video explains how NASA scientists forgot about Newton's third law when they trained their astronauts to work outside the space capsule. This resulted in a new capsule design that included handles on the exterior of the craft.

<http://www.youtube.com/watch?v=PrJnWTcW55s>

Special thanks to Jennifer Groppe from Maret School in Washington, D.C., for submitting all these video links. If you have video links you'd like to share, please email them with a brief description to Diane Riendeau at driendeau@dist113.org.

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